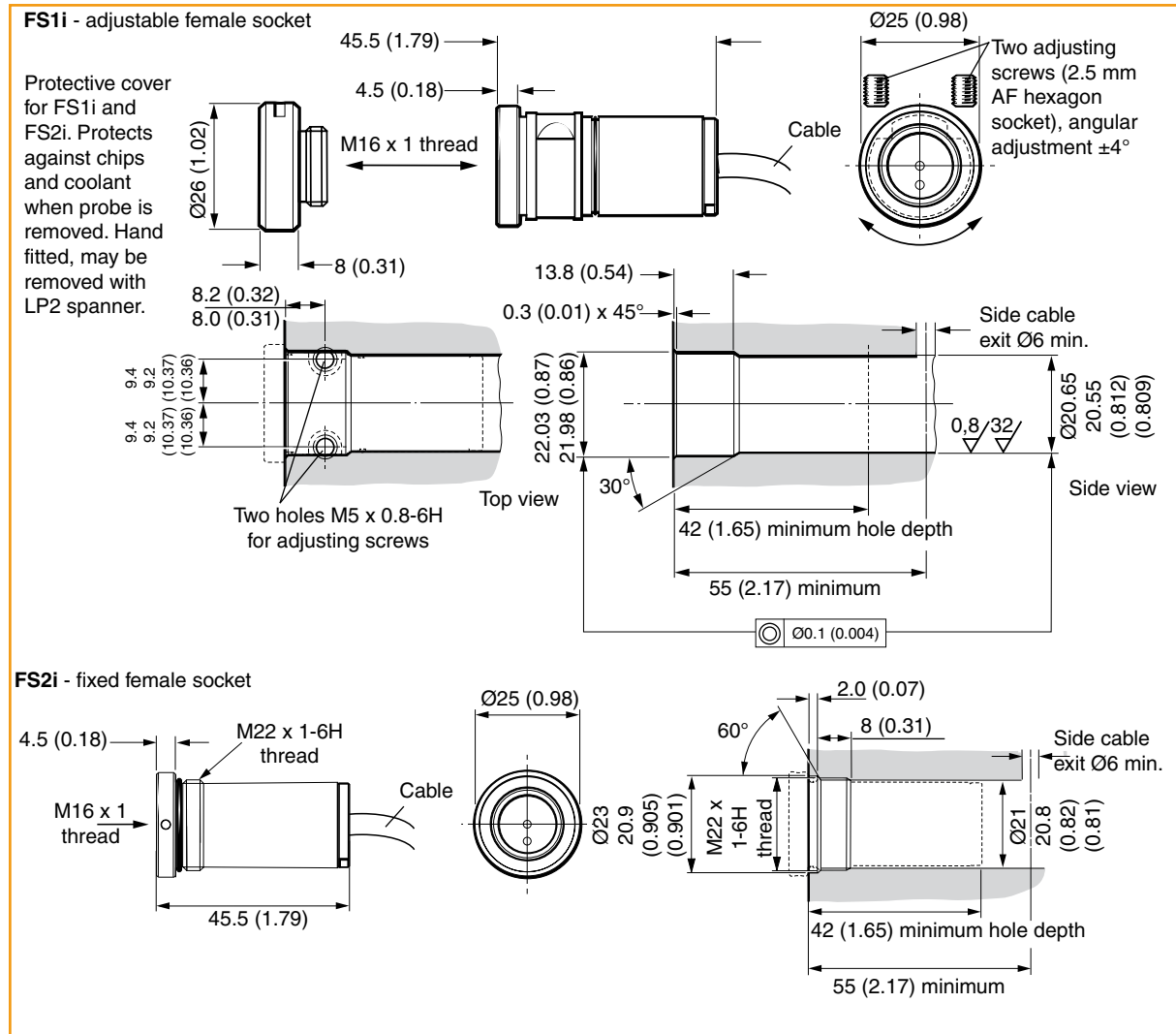


# FS1i and FS2i sockets

[www.renishaw.com/lp2](http://www.renishaw.com/lp2)



## FS1i and FS2i sockets

The FS1i and FS2i sockets are used for holding the LP2 or LP2H probe. Each contains an integral interface, which converts the probe signal into a voltage-free solid state relay (SSR) output, for connection to the CNC machine's control.



SSR's are susceptible to electromagnetic interference, so the cable must be routed so as to avoid power cables or other sources of high frequency electromagnetic interference.

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## Data sheet

### FS1i and FS2i sockets



## EMC compliance

The FS1i and FS2i have been manufactured to conform to the following standard:-

BS EN 61326: 1998 - Electrical equipment for measurement, control and laboratory use - EMC requirements.

Immunity to annex A - industrial locations.

Emissions to class A (non-domestic) limits.

and comply with the protective requirements of directive:-

89/336/EEC - Electromagnetic compatibility

## Care of equipment

FS1i and FS2i are precision devices and must therefore be treated with care.

Always ensure the probe holder is clean and dry before inserting the probe.

## Changes to Renishaw products

Renishaw plc reserves the right to improve, change or modify its products and documentation without incurring any obligations to make changes to Renishaw equipment previously sold or distributed.

## Electrical

Supply voltage	12 Vdc to 30 Vdc
Supply current	18 mA nominal, 25 mA max.
Output current max.	50 mA
Output type	Voltage free SSR
Protection	Short circuit protected output. <b>The interface must be powered from a suitably fused supply.</b>

## Warranty

Renishaw plc warrants its equipment for 1 year provided that it is installed exactly as defined in this document

Claims under warranty must be made from Authorised Service Centres only, which may be advised by the supplier or distributor.

## Patents

The publication of material within this document does not imply freedom from the patent rights of Renishaw plc.

## Safety

It is the responsibility of the machine supplier to ensure that the user is made aware of any hazards involved in the operation of their machine, including those mentioned in Renishaw product documentation, and to ensure that adequate guards and safety interlocks are provided.

## Connection

	Normally closed*	Normally open*
Red	12 Vdc to 30 Vdc	0 Vdc
Blue	0 Vdc	12 Vdc to 30 Vdc
Yellow	Probe status, voltage free SSR	
Green	Probe status, voltage free SSR	
Grey/black	Cable screen, machine GND	

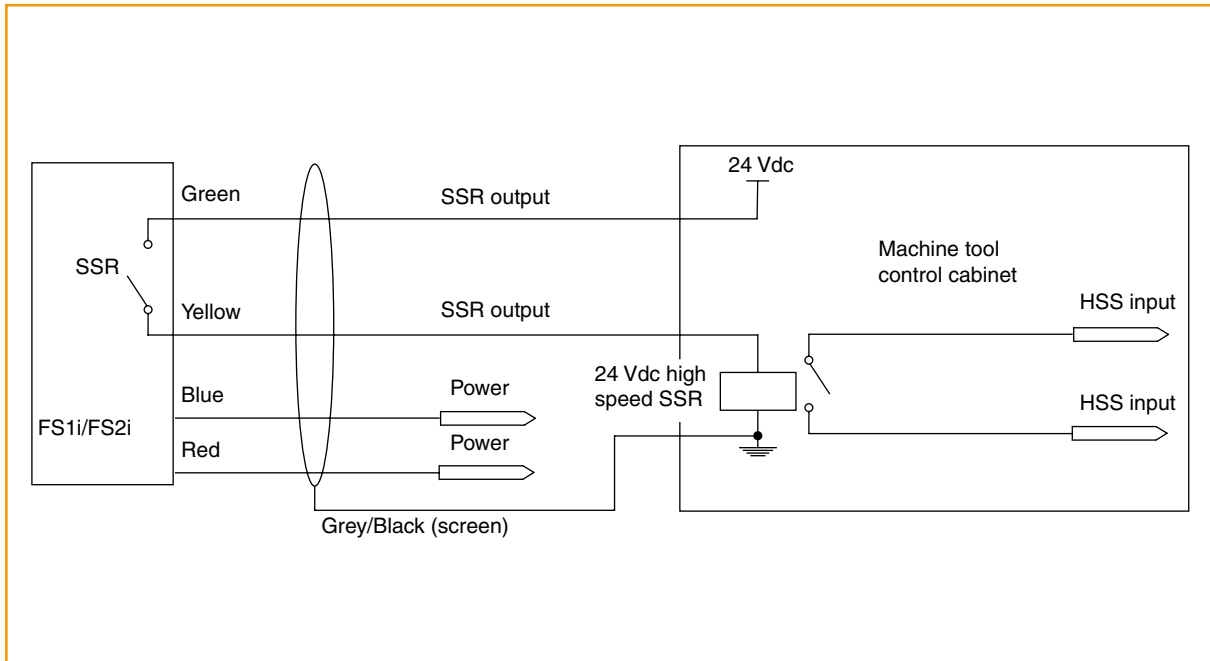
\* Refers to the SSR contacts when the probe is in seated state.

## Specification

Storage temperature	-10 °C to 70 °C
Operating temperature	10 °C to 40 °C
IP rating	IPX8
Cable	4 core screen cable with polyurethane sheath. Each core 7/0.2 insulated. Ø4.35 mm x 1.0 m (3 ft 3 in)
Weight	70 g

## High speed skip installation

5 V high speed skip (HSS) inputs may be susceptible to electromagnetic interference, hence the cable should be run in ducting used for signal cables. Where this is not possible, a 24 V high speed SSR can be used to switch the 5 V to the HSS input inside the control cabinet, as shown in the diagram below. This will provide greater isolation and noise immunity.



**Parts list** – please quote the part number when ordering equipment

Type	Part no.	Description
FS1i	A-4163-1000	FS1i adjustable socket assembly, two adjusting screws, protective cover.
FS2i	A-4163-2000	FS2i fixed socket assembly, protective cover.
PSU3	A-2019-0018	PSU3 power supply unit.
Spanner	A-2063-7587	C-spanner.
Protective cover	M-2063-7628	Cover protects against chips and coolant when probe is removed.
Adjusting screw	P-SC11-0508	Grubscrew M5 × 0.8 - 8 mm long.
<b>Publications.</b> These can be downloaded from our web site at <a href="http://www.renishaw.com">www.renishaw.com</a> .		
FS1i and FS2i sockets	H-2000-2073	Data sheet: FS1i and FS2i sockets (folded).
FS1i and FS2i sockets	H-2000-2078	Data sheet: FS1i and FS2i sockets (unfolded).
PSU3	H-2000-2200	Data sheet: Power supply unit.

**For worldwide contact details, please visit our  
 main web site at [www.renishaw.com/contact](http://www.renishaw.com/contact)**

